



EP2651

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Dong-Ho Oh, et al.

Serial No.: 10/618,141

Filed: 7/10/03

Group Art Unit: 2651

Title: METHOD AND APPARATUS  
REDUCING OFF-TRACK HEAD  
MOTION DUE TO DISK  
VIBRATION IN A DISK DRIVE  
USING CONFIGURATION OF THE  
DISK DRIVE SERVO  
CONTROLLER

Examiner: Not yet known

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Attorney Docket No.: 139-025U

Mail Stop IDS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

This Information Disclosure Statement is submitted:

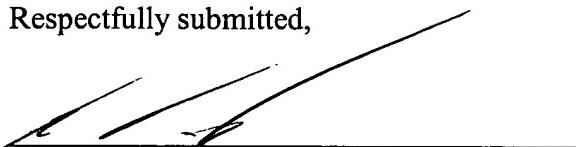
- under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)
- under 37 CFR 1.97(c) together with either a:  
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 a \$240.00 fee under 37 CFR 1.17(p), or  
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- under 37 CFR 1.97(d) together with a:  
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 a petition under 37 CFR 1.97(d)(2)(ii), and  
 a \$130.00 petition fee set forth in 37 CFR 1.17(i)(1).  
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X Applicant(s) submit herewith Form PTO/SB/08A and PTO/SB/08B-Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

The relevance of the attached references is that this is the closest art of which Applicant is aware. Applicant submits that the above references taken alone or in combination neither anticipate nor render obvious the present invention. Consideration of the foregoing in relation to this application is respectfully requested.

It is requested that the information disclosed herein be made of record in this application.

Respectfully submitted,



GREGORY SCOTT SMITH  
Attorney/Agent for Applicant(s)  
Reg. No. 38,309

Date: November 20, 2003

Telephone No.: (510) 742-7417

#### CERTIFICATE OF MAILING

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(use as many sheets as necessary)

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of

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**Complete if Known**

Application Number	10/618,141
Filing Date	7/10/2003
First Named Inventor	Oh et al.
Group Art Unit	2651
Examiner Name	Not yet known

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T<sup>2</sup>**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	1	Aurthor unknown, Design of a Disk Drive Servo: A Case Study, 37 pages, Chapter 14.
	2	LI, YUNFENG and HOROWITZ, ROBERTO, Active Vibration Control of a PZT Actuated Suspension in Hard Disk Drives, date unknown, 6 pages.
	3	MCALLISTER, S. JEFFREY, The Effect of Disk Platter Resonances on Track Misregistration in 3.5 Inch Disk Drives, IEEE Transactions on Magnetics, May 1996, 5 pages, volume 32, Number 3.
	4	HAO, QI et al., TMR Online Optimization Using Quasi-Newton Method for HDD Servo Systems, Procedings of the American Control Conference, June 2000, 55 pages, Chicago, Illinois.
	5	GOH, B. TECK et al., Design and Implementation of a Hard Disk Drive Servo System Using Robust and Perfect Tracking Approach, IEEE Transaction on Control Systems Technology, March 2001, 13 pages, Volume 9, Number 2.
	6	LI, YUNFENG and HOROWITZ, ROBERTO, Mechatronics of Electrostatic Microactuators for Computer Disk Drive Dual-Stage Servo Systems, IEEE/Asme Transactions of Mechatronics, June 2001, 11 pages, Volume 6, Number 2.
	7	LI, YUNFENG and HOROWITZ, ROBERTO, Active Suspension Vibration Control with Dual Stage Actuators in Hard Disk Drives, Proceedings of the American Control Conference, June 25-27, 2001, 6 pages.
	8	Y. LI, R. HOROWITZ, Design and Testing of Track-Following Controllers for Dual-Stage Servo Systems with PZT Actuated Suspensions, Microsystem Technologies 8 (2002), 12 pages, Springer-Verlag 2002.
	9	Web Control Articles, 164 pages, 10/10/02.

Examiner Signature	Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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